

Fig. 5

EAI Jack Task Anthology

Five-Hour Shift Report - Metabolic Energy Expenditure

USPS DBCS SWEEPER

Job #3287

Parameters

Level 2 Tray Lift

Female, 5'0", 125 lbs

Duration = 302.89 min

Work time <= 8 hr

Units = inches, kilograms

Arm Work = 30%

Body Work = 70%

Standing = 93%, Bent = 7%

Task Descriptions

Task#	keal	Description	Frequency	Category	Detail	High Pos (m)	Low Pos (m)	Load (kg)	Time (min)	Force (kg)	Walk-speed(m/s)	Distance (m)	Slope(%)
10	2.217	walk	158	walks	inclined	-	-	-	0.00425	-	-	13.78	0
20	6.173	raise arms	160	lifts	stoop	28.65	62.5	0	-	-	-	-	-
30	5.296	reach to drawer	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
40	5.296	grasp drawer	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
50	5.296	pull drawer out	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
60	5.296	release drawer	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
70	10.000	reach to DBCS	160	arm work - lateral	180 deg. both hands	-	-	0	-	-	-	-	-
80	5.296	grasp letters	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
90	7.314	lift letters	160	arm work - lateral	90 deg. standing	-	-	2	-	-	-	-	-
100	4.800	move letters to 1226 F rack	160	arm work - general	light - both arms	-	-	-	0.25	-	-	-	-
110	5.296	place letters in letter tray	160	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
120	5.317	stand straight	160	lowers	stoop	28.65	50.0	0	-	-	-	-	-
130	0.358	raise arms	17	lifts	stoop	27.72	33.29	0	-	-	-	-	-
140	0.563	grasp tray	17	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
150	0.000	pull tray out	17	pushes/pulls	bench height (31.5 in)	-	-	-	-	22	-	16.87	-
160	3.420	lift tray	17	lifts	semi-squat	29.38	51.51	11.34	-	-	-	-	-
170	2.465	place tray	17	arm work - lateral	180 deg. both hands	-	-	11.34	-	-	-	-	-
180	0.000	push tray in	17	pushes/pulls	chin height (59 in)	-	-	-	-	22	-	14.49	-
190	0.000	release tray	17	arm work - lateral	180 deg. standing	-	-	0	-	-	-	-	-
200	0.795	stand straight	17	lowers	stoop	27.85	59.29	0	-	-	-	-	-
210	0.147	raise arms	7	lifts	stoop	27.72	33.29	0	-	-	-	-	-
220	0.232	grasp tray	7	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
230	0.000	pull tray out	7	pushes/pulls	bench height (31.5 in)	-	-	-	-	22	-	16.87	-
240	1.408	lift tray	7	lifts	semi-squat	29.38	51.51	11.34	-	-	-	-	-
250	1.015	place tray	7	arm work - lateral	180 deg. both hands	-	-	11.34	-	-	-	-	-
260	0.000	push tray in	7	pushes/pulls	chin height (59 in)	-	-	-	-	22	-	14.49	-
270	0.000	release tray	7	arm work - lateral	180 deg. standing	-	-	0	-	-	-	-	-
280	0.327	stand straight	7	lowers	stoop	27.85	59.29	0	-	-	-	-	-
290	6.828	raise arms	177	lifts	stoop	28.65	62.5	0	-	-	-	-	-
300	5.859	reach to drawer	177	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
310	5.859	grasp drawer	177	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
320	5.859	pull drawer out	177	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-
330	5.859	release drawer	177	arm work - lateral	90 deg. standing	-	-	0	-	-	-	-	-

FIG. 6

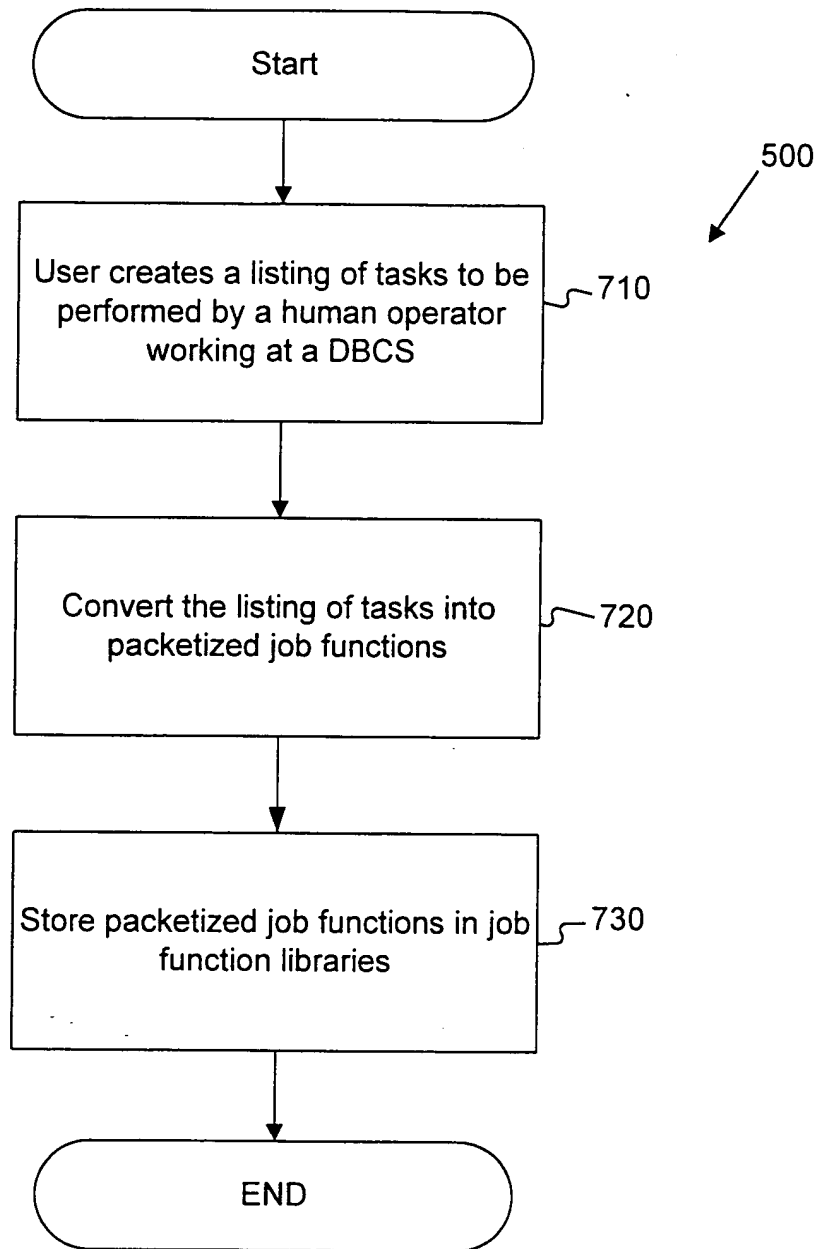


Fig. 7

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graph TD; Start([Start]) --> 810[Receive time-based event]; 810 --> 820{Time stamp >= current time}; 820 -- Yes --> 830[Select job functions associated with time-based event]; 830 --> 840[Transfer each job function to the ergonomic computer]; 840 --> End([End]);
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The flowchart illustrates the process for determining a time-based event. It begins with a 'Start' terminal, leading to a process block 'Receive time-based event' (labeled 810). This block leads to a decision diamond 'Time stamp >= current time' (labeled 820). If the condition is 'Yes', the flow proceeds to a process block 'Select job functions associated with time-based event' (labeled 830). From there, it goes to another process block 'Transfer each job function to the ergonomic computer' (labeled 840), which finally leads to an 'End' terminal.

700

800

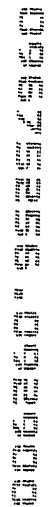


Fig. 9